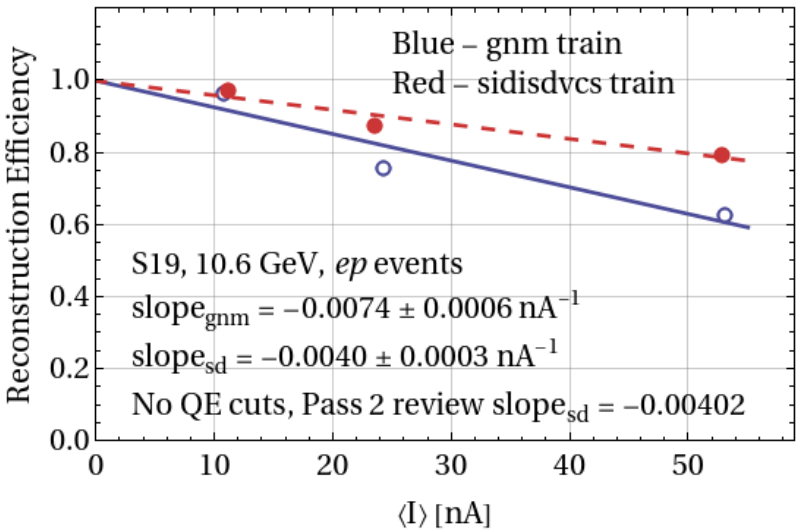
Luminosity dependence of RGB data 1

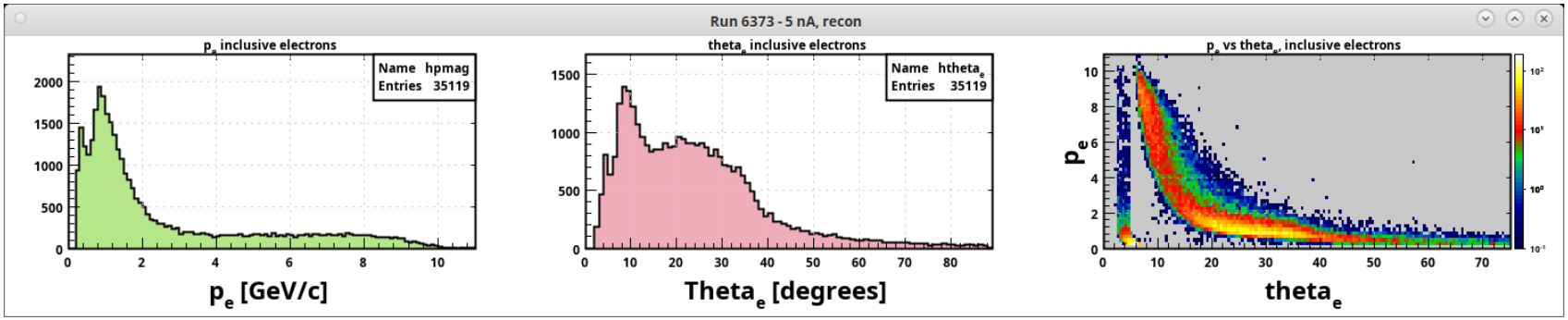
1. Steeper slope of reconstruction efficiency with luminosity observed for *ep* events from gnm train compared with sidisdvcs train.
2. Validate the gmn analysis by combining low-luminosity data with high-luminosity background events and compare results with full, high-luminosity measurements. See CLAS12-NOTE 2020-005.



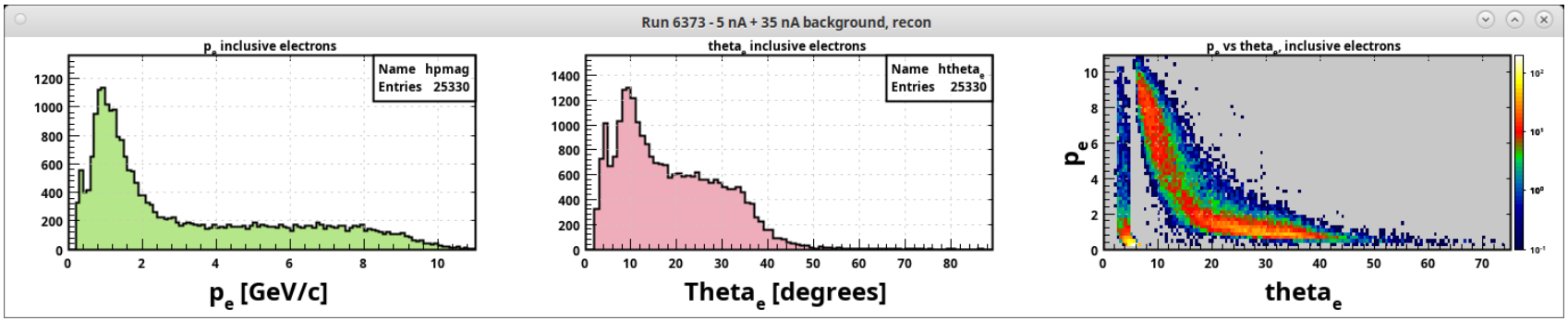
3. Steps.
   1. Update the 5-nA, reconstructed data (run 6373). The spring, 2019 data files did not include the dictionary so this has to be done first.
   2. Merge the 5-nA data from the previous step with the 35-nA background data.
   3. Run the denoising code on the output of the previous step.
   4. Reconstruct the output of the previous step using coatjava 10.0.2.
   5. Start post-reconstruction analysis.

Combine Low-luminosity data with Background runs

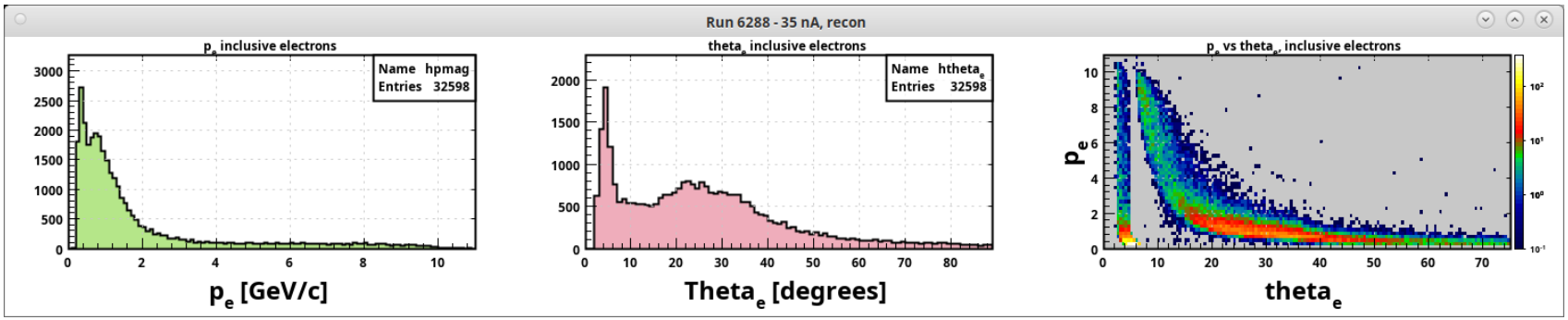
Clean, 5-nA results (run 6373, spring 2019, 10.6 GeV). First 50k events.



5-nA data (run 6373) merged with 35-nA background and reconstructed. First 50k events.



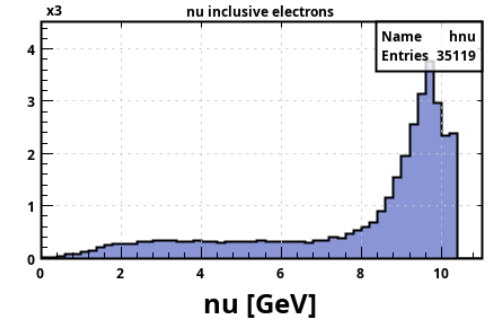
35-nA data (run 6288, spring 2019, 10.6 GeV) reconstructed. First 50k events.

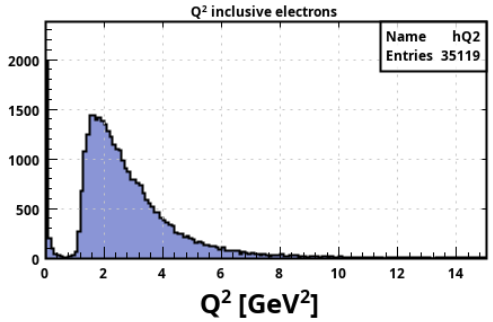


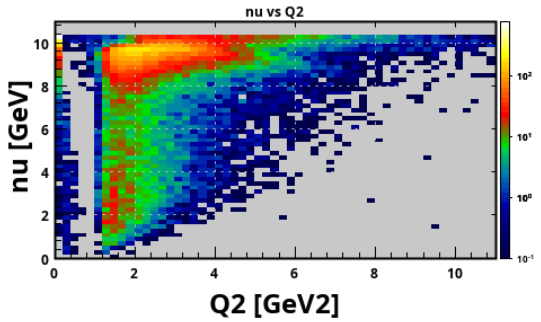
Next Steps

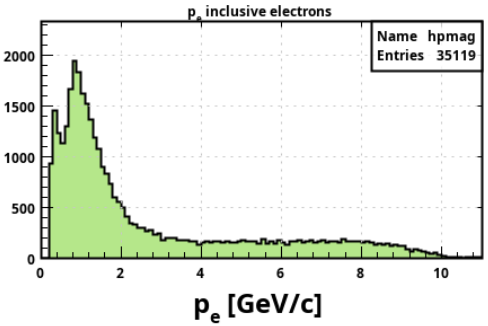
1. Continue checking results in initial analysis
2. Develop scripts for ifarm to analyze complete files.
3. Getting analysis using Lamya's code working.

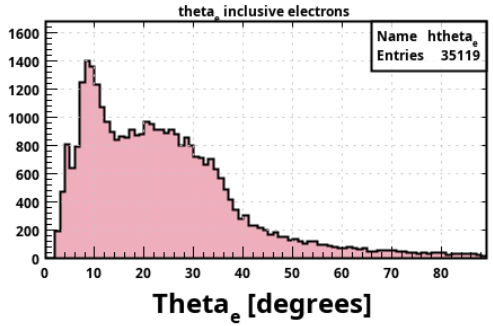
More distributions

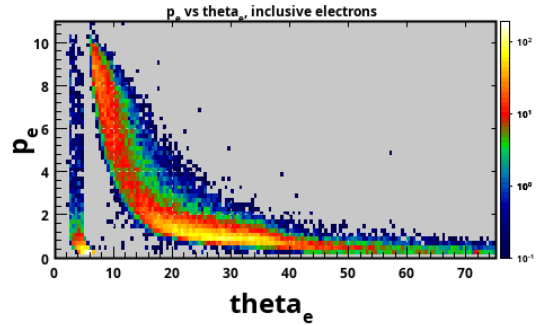


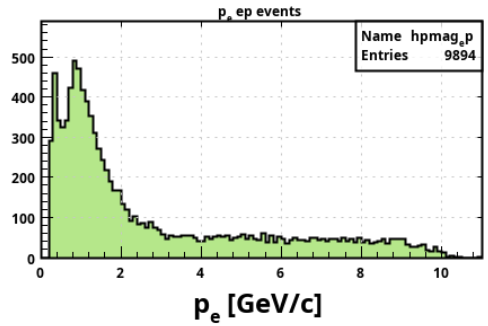


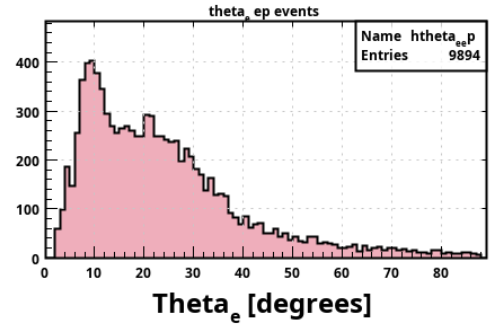


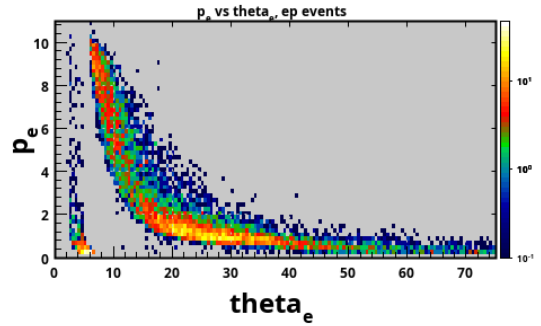












More distributions